In the context of blockchain and cryptocurrencies, the terms "fungible," "non-fungible," and "semi-fungible" **refer to the characteristics of digital assets**. These terms describe the extent to which **individual units of a particular asset can be interchangeable with each other**. Let's explore each concept:

**1. Fungible:**

- **Definition:** Fungible assets are **interchangeable and mutually interchangeable with each other**. Each unit of a fungible asset is **indistinguishable** from another unit of the same asset.

- **Example:** Cryptocurrencies like Bitcoin and traditional currencies are fungible. If you have one Bitcoin or one US dollar, it is interchangeable with any other Bitcoin or US dollar of the same value. A popular standard for FT is **ERC-20 token**.

**2. Non-Fungible:**

- **Definition:** Non-fungible assets are **unique and cannot be exchanged on a one-to-one basis** because each unit has distinct characteristics, making them different from one another.

- **Example:** Non-fungible tokens (NFTs) are a common example. Each NFT represents a unique digital or physical item, such as digital art, collectibles, or real estate, and cannot be replaced on a like-for-like basis. Popular blockchain standards for NFTs include **ERC-721 (Ethereum) and others**.

**3. Semi-Fungible:**

- **Definition:** Semi-fungible assets exhibit **characteristics of both fungible and non-fungible assets.** While they may share some interchangeable properties, they also have unique features that differentiate them to some extent.

- **Example:** Semi-fungible tokens **may represent units that are similar but not identical**. For instance, in the gaming industry, in-game items or characters could be semi-fungible. While they may share some common attributes, each item or character might have unique qualities.

**In summary:**

- Fungible assets are interchangeable with each other, and each unit is **identical**.

- Non-fungible assets are unique, and each unit has **distinct characteristics**.

- Semi-fungible assets fall somewhere in between, with certain units being **somewhat interchangeable** **but also having unique features**.

These concepts play a crucial role in various blockchain applications, particularly in the creation and management of digital assets on decentralized platforms.